Abstract

Piezoactive actuator with dampened amplified movement

The piezoactive actuator with amplified movement comprises a first sub-assembly formed by a mechanical movement amplifier and a second sub-assembly equipped with piezoactive elements. An interface with a load and an interface with a base, respectively placed at the peaks of a small axis of the shell and designed for actuating the load with respect to the base, define an actuating axis. A longitudinal deformation of the large axis enables a deformation of the small axis to be induced, designed to generate a movement at the interface with the load, the component of which movement along the small axis is amplified. At least one zone made of elastomer material is arranged at least substantially along the actuating axis to dampen deformations and increase the capacity of the actuator to resist external stresses. The actuator comprises at least one free space adjacent to the elastomer material zones in a direction orthogonal to the actuating axis.